May 28, 2002

HAND DELIVERY

Mr. John Robertus, Executive Director
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Dear Mr. Robertus:

Subject: Proposed Amendment to the Water Quality Control Plan for the San Diego Region (Basin Plan) to Incorporate a Total Maximum Daily Load (TMDL) for Diazinon in the Chollas Creek Watershed
*Proposed Resolution No. R9-2002-0123*

We have thoroughly reviewed the proposed Water Quality Control Plan (Basin Plan) amendment for the Diazinon TMDL in Chollas Creek and associated documentation posted on the Regional Water Quality Control Board website. This letter provides the City's written comments and suggestions on the proposed TMDL.

The City of San Diego is committed to improving water quality as demonstrated by our actions. We want our residents and visitors to be able to enjoy our beaches, bays, creeks, and lagoons. Because of our commitment to water quality improvement, the City has taken steps to address water quality improvements in Chollas Creek. Our actions related to Chollas Creek water quality include:

1. Mayor Dick Murphy established "Clean Up Our Beaches and Bays" as one of his top 10 goals for the City in January 2001 to focus the City's efforts. The Clean Water Task Force was formed and is co-chaired by the Mayor and Councilmember Scott Peters, and represented by Councilmembers Donna Frye and Bryon Wear. The Clean Water Task Force is comprised of distinguished members of the business, environmental, regulatory, academic communities, to establish a strong foundation for the collaborative development of policies, programs, and innovative thinking to put our commitment to clean water into action.

2. The City sent a letter of concern to the EPA requesting that Diazinon be banned because of its effect on aquatic organisms in 1999. The City is also a member of the California Storm Water Quality Task Force and its workgroup on TMDL and pesticides. Participation in this workgroup has assisted staff in understanding other Diazinon TMDL activities occurring across California.

3. The City incorporated an Integrated Pest Management component in its jurisdictional Urban Runoff Management Plan addressing pesticide usage at all City parks and facilities. The Plan was approved by City Council on January 28, 2002.

4. Over the past three years, the City developed the Chollas Creek Enhancement Plan, a vision for the 30 miles of Chollas Creek within the City of San Diego. City Council adopted the Chollas Creek Enhancement Plan on May 14, 2002. The Chollas Creek Enhancement Plan proposes to establish a passive park along the creek by protecting undisturbed areas from development encroachment, promoting cohesive development which integrates the built and open spaces adjacent to the creek into useable areas for the community, and, where feasible, implementing functional restoration projects along the creek's length (including concrete removal and floodplain widening opportunities). The Enhancement Plan incorporates trail linkages, neighborhood-scale education centers, signage and public art. One of the major goals of the adopted plan is to educate the community about the functions and values of the creek and adjacent habitats and promote stewardship of the creek among its neighbors. (copy enclosed)

5. The City will include a component on pesticide use in the six southern Watershed Urban Runoff Management Plans (San Dieguito, Penasquitos, Mission Bay, San Diego River, San Diego Bay, Tijuana River), which are currently being developed in cooperation with other San Diego Municipal Copermittees. These Plans will be submitted to the Regional Board on January 31, 2003.

6. Countywide outreach and education for pesticide use will be implemented in the upcoming fiscal year (2002-2003) and future years. The San Diego Municipal Copermittees approved the 2002-2003 budget for this activity several months ago. The outreach will be regional and implemented by the County of San Diego. The City and the County of San Diego worked cooperatively to develop the outreach work plan and identified pesticide use as a priority.

7. The City has participated in intensive monitoring for pesticides in the Chollas Creek watershed. Monitoring was conducted from 1999 through 2001. This monitoring effort was collaborative between the Regional Board, Port of San Diego, State Department of Pesticide Regulation, the City of San Diego, and the San Diego Municipal Copermittees. Three Toxicity Identification Evaluations were conducted jointly in an attempt to identify sources of toxicity within Chollas Creek. A subsequent source identification study was conducted and samples were collected at a total of nine locations. The 1999-2001 Chollas Creek Watershed Monitoring Final Report prepared by MEC Analytical Systems, Inc. documented that there is a correlation between Diazinon and toxicity. This report is available for review and reveals that no consistent single source of Diazinon could be identified and that it is ubiquitous throughout the watershed.

8. The City will continue to monitor for Diazinon and other pollutants in the Chollas Creek Watershed. The Regional Monitoring Program will continue to collect flow-weighted composite samples at one sample station for three rain events. The City of San Diego will also be performing dry weather monitoring at 19 locations that will include Diazinon analyzes for approximately 25% of those sample stations. The data collected from these two programs will be incorporated into the City's Storm Water Program's annual submission to the Regional Board. These annual submissions will also incorporate research compiled by other scientists

investigating Diazinon. This effort will provide needed information in a comprehensive and cost-effective manner to characterize Diazinon concentrations after its retail sale is prohibited.

9. To expand the monitoring program approach, the City of San Diego is also coordinating with the San Diego BayKeeper regarding citizen-monitoring activities for the Chollas Creek watershed. The citizen-monitoring program will increase the amount of analytical data and expand the educational outreach efforts into the community.

Our existing and on-going activities have similar goals and objectives as those activities identified in the proposed TMDL implementation plan. The anticipated outcomes of our existing activities can be expected to be the same as those of the proposed TMDL implementation plan. These activities have already been implemented under existing programs.

The City has concerns regarding the procedural process for this proposed Basin Plan amendment. In 1998, Chollas Creek was placed on the federal 303(d) list as a water quality limited segment for Cadmium, Copper, High Coliform Count, Lead, Toxicity, and Zinc. The Regional Board's proposed 2002 303(d) list includes Chollas Creek on the Watch List for Total Chlordane, Total PCBs, trash and sediment. It appears that this TMDL was prepared for a pollutant that is not on the existing or proposed 303(d) lists.

The City has concerns regarding the public participation requirement of this proposed TMDL. As a stakeholder in the Chollas Creek Diazinon TMDL development process, the City has participated in all public workshops. To date there have been four workshops held regarding this issue. The first three workshops were held in 1998 and 1999. Recently, the fourth workshop was held on May 17, 2002. Public participation is a federally mandated component of the TMDL process. However, the Regional Board has not encouraged public participation. Between the workshop in 1999 and the fourth workshop in May 2002, there have been no public hearings, workshops, or presentations. During this time, the Regional Board did not share information regarding the process, explain the implementation plans, or provide updates on the TMDL or proposed Basin Plan amendment. Regional Board staff occasionally communicated with City staff to request or share information related to Diazinon or Integrated Pest Management activities. We have no knowledge that the Regional Board sought input from other stakeholders or the public. The City is concerned that the Regional Board has not involved the public in this process for the past two years.

The proposed TMDL Basin Plan Amendment dated April 26, 2002 was available on the Regional Board website on April 28, 2002. The fourth workshop was held 19 days later. Written comments were due May 28, 2002 and the Regional Board Hearing and Filing will take place June 12, 2002. This timeline provides very little opportunity for public participation and interaction in this process. The Basin Plan Amendment contains some significant and important issues relating to load reductions and the implementation plan that should be subject to adequate public review and discussion prior to finalization and incorporation into the Basin Plan. Just recently, we met with Regional Board staff on May 24, 2002 to specifically discuss these issues. We recommended that the Regional Board staff facilitate discussion between all stakeholders to develop the implementation plan for the proposed TMDL.

In contrast to the actions by the San Diego Regional Board, Region 2 is holding numerous public presentations and workshops to meet the public participation requirement of 40 CFR 130.7. Bill Johnson of the California Regional Water Quality Control Board - Region 2 is responsible for the

development of the Diazinon TMDL for 37 creeks in the Bay area. Mr. Johnson indicated Region 2 is conducting multiple public presentations to educate and obtain public participation for their Diazinon TMDL.

The City has specific concerns related to the scientific foundation of the proposed TMDL. The TMDL was initiated based upon a limited data set. Storm water was found to be toxic to *Ceriodaphnia dubia*, however, and not all storm events were toxic. Three storm events were monitored and Toxicity Identification Evaluations (TIEs) were conducted in an attempt to identify the source of the toxicity. Of the three TIEs conducted, only two storm events indicated toxicity and the TIEs could only be conducted on these two samples. TIEs indicated organophosphate pesticides to be the probable source of toxicity and researchers recommended additional studies to correlate the pesticides to the toxicity. Only recently has additional information become available to correlate toxicity to Diazinon (MEC, May 2002).

Review of the peer review comments and responses revealed that significant recommendations by the technical peer reviewers were not addressed. Toxicologist, Dr. Tjeerdema recommended that modeling of the fate and transport of Diazinon in the creek needed to be performed. The proposed Basin Plan amendment documentation indicates that there are no plans to conduct modeling. However, the Department of Pesticide Regulation had TDC Environmental, Inc. prepare a fate and transport model and it is posted on their website.

Additionally, Dr. Schlenk recommended that an Ecology Risk Assessment and a description of fauna susceptible to Diazinon be prepared. This strategy is a "triad approach" developed to evaluate the physical, chemical, and biological effects within the particular study area. Chollas Creek has physical and chemical data already collected and the preparation of the biological assessment and fauna survey would help to determine the actual degradation of the creek. This assessment will assist with the evaluation of Chollas Creek's beneficial uses for the next update of the Basin Plan. This assessment could also identify if hydraulics or other physical conditions contribute to the creek toxicity. The proposed Basin Plan amendment documentation indicates that there are no plans to conduct an Ecological Risk Assessment or a fauna survey.

The City is concerned about the immediate implementation plan schedule in this proposed Basin Plan amendment. US Environmental Protection Agency (EPA) has banned the use of Diazinon through a phase-out and elimination program. The Regional Board lists the ban as the single most important action to implement this TMDL. However, review of the proposed Basin Plan amendment's implementation plan appears to require an immediate reduction of Diazinon concentration by 90%. *Not only does this proposed implementation schedule not correspond to the EPA phase-out, but also the federal regulations and guidelines recommend a "phased" approach of pollution reduction to achieve the desired outcome of obtaining the Water Quality Objectives.* During the workshop on May 17, 2002, Linda Pardy, Regional Board staff responsible of the development of this TMDL, stated that it is expected that Diazinon concentrations will increase before they decline because manufacturers and retailers will offer discount to move final inventory prior to phase-out. And the general public will stock-up and increasingly apply Diazinon immediately prior to and for some period following phase-out. This assessment is in conflict with the proposed implementation plan and is of great concern to the City of San Diego. *The City of San Diego has no regulatory authority over the registration, labeling and use of Diazinon, or any other pesticides, and cannot be expected to achieve this reduction objective immediately upon the approval of this proposed Basin Plan amendment.*

In addition to our concerns regarding the proposed TMDL, there are other considerations. First the beneficial uses (although listed in the Basin Plan) do not appear to be well established or well documented for Chollas Creek. We believe these beneficial uses should be thoroughly considered in the upcoming Tri-annual Review process for the Basin Plan. Specifically, there is no evidence to support the WILD or WARM designation. We are concerned about contact water recreation in the channelized areas of the creek and we question the potential future beneficial use of contact water recreation. As evidenced by the Regional Board's response to technical peer reviewers, there has not been a biological assessment or ecology risk assessment in Chollas Creek. There is no information regarding habitat and ecology in Chollas Creek. Most of Chollas Creek is highly channelized and the Creek is dry during dry weather months. *What wildlife is supported by this system?*

The current configuration of Chollas Creek is mostly an underground storm drain system or concrete channel and does not support the Basin Plan designated beneficial uses addressed by this proposed amendment. This system is the typical middle 20th century configuration designed to move the water off the streets and surrounding areas to minimize flooding, property damage, and personal injury. This design keeps the creek dry most of the time with the exception of a few areas of ponded water. During rain events flash flooding occurs in the system because of it is designed to quickly move water away from public areas. *Based on current creek configuration, hydraulics, and field observations the appropriateness of the existing designated beneficial uses is called into question and warrants review.*

In conclusion, the City of San Diego has concerns about this proposed Basin Plan amendment. The procedural process is flawed considering the 303(d) listing is different from the proposed Basin Plan amendment. The City cannot comply with a 90% reduction of Diazinon concentrations immediately upon the approval of this proposed TMDL as outlined in its implementation schedule. The public participation process has been non-existent for more that two years. We are also concerned about the appropriateness of Chollas Creek's beneficial uses and if this proposed amendment would protect them when the creek has been channelized for over 50 years. Because the authority to control the use of Diazinon does not reside with the Regional Board or the local municipalities and Diazinon is ubiquitous in the watershed, the existing Diazinon ban should be allowed to run its course and municipalities should continue monitoring and reporting Diazinon information as required in Order 2001-01, the San Diego Municipal Storm Water Permit.

The City has the following recommendations for the proposed Basin Plan amendment and TMDL.

1. A revision of the proposed Basin Plan amendment to include a phased implementation schedule that will correspond to the Diazinon ban and its anticipated increase in use.

2. Chollas Creek should be listed on the 303(d) list of water quality limited segments for Diazinon.

3. Adequate public involvement in the implementation plan prior to Basin Plan amendment should be allowed for by delaying the filing to allow for public participation through additional workshops and stakeholder discussions.

4. A review of the existing designated beneficial uses. This may require a biological survey or ecology risk assessment as recommended by technical peer reviewers in the TMDL to support or identify beneficial uses. This review should be done and involve appropriate public participation prior to the Tri-annual review of the Basin Plan.

The City of San Diego will continue our strategic actions to address Diazinon, and more importantly, the overall water quality of Chollas Creek. We hope our recommendations to modify the proposed Basin Plan amendment are seriously considered. If you have any questions or require more information, please don't hesitate to contact me at (619) 525-8647 or Storm Water Specialist Ruth Kolb at (619) 525-8636.

Sincerely,

Karen Henry
Deputy Director

KH\rk

Enclosure: Chollas Creek Enhancement Plan

cc: San Diego County Municipal Storm Water Program Copermittees

Final Chollas TMDL Ltr 05-28-02 Revised.doc

**Staff Comments**
**Public Review Draft, April 26, 2002**
**TMDL for Diazinon in Chollas Creek Watershed**
**Greg Frantz**
**May 31, 2002**

## General Comments

This TMDL is very straight-forward. Numeric targets for diazinon are set at the California Department of Fish and Game's Water Quality Criteria for the protection of freshwater organisms of 0.08 ug/L (acute) and 0.05 ug/L (chronic). Allocations are set at 90 percent of these values. Implementation will be through USEPA's diazinon phase-out and elimination program, modification of storm water permits, and activities by the Copermittees in the Chollas Creek watershed pursuant to the MS4 Permit and Water Code section 13267. This approach appears sound, and should meet OAL's criteria for necessity and conciseness. The draft resolution and amendment language are likewise precise, containing all of the relevant information to meet OAL's standards.

## Editorial Comments

I found three references cited in the text of the staff report I was unable to find in the bibliography. These were: page 16 second paragraph, CDFG 2000; page 23 fourth paragraph, Pers. Com., 2002; and page 28 fifth paragraph, Alameda County Flood Control and Water Conservation District 1997.

One typo—page 28, first full paragraph, line 3: "during most of the yes.." should be "during most of the year…"

Three minor corrections: on page 21 in the table below the pie chart, you probably don't need to express diazinon usage to the first decimal place. On page 27, Table 8-1, you might again mention where the Average Diazinon Concentration (column one) of 0.46 ug/L comes from. This is initially explained back on page 10, and by the time I got to page 27 I'd forgotten about it. On page 33 at the bottom in the first bullet, it probably should read "the registration <u>was</u> canceled on March 2001.."

That's it. This is a very good staff report— organized, concise, clear, and readable (this is important to OAL). I see no problem of future drafts not meeting OAL's scrutiny.

**State Board Staff Comments**
**Diazinon TMDL for Chollas Creek, San Diego Region**
**Greg Frantz**
**October 3, 2001**

## Overall Comments

This is an interesting TMDL. There is no numerical water quality objective in the San Diego Region basin plan, only a narrative one that refers to affecting beneficial uses in surface waters. Regional Board staff have therefore looked for, and found, a Water Quality Criterion for protection of freshwater aquatic organisms from diazinon that was developed by the California Department of Fish and Game in 1994. These numbers, as concentrations, then become the TMDL numeric targets for acute and chronic toxicity (0.08 µg/L and 0.05 µg/L, respectively). Because these targets are expressed as concentrations, the load allocations are also expressed as concentrations, not mass emissions. Further, because concentrations of diazinon in Chollas Creek are difficult to characterize (due to fluctuations, transformations, seasonal differences in stream flow), Regional Board staff have set the load allocations (as concentrations) as identical to the numeric targets, but these allocations are to be met in the incoming discharges, not the receiving waters of Chollas Creek. The reasoning here is that if allocations are met in the incoming waters, the waters of Chollas Creek will therefore meet the established targets. I think this approach is rather clever, and don't see any compelling yet reason why it shouldn't work.

## Specific Comments

Only a few things caught my attention that I feel could use some clarification. In the second paragraph, it should be clearly stated that municipal storm water is believed to be the primary source of diazinon entering Chollas Creek. This is because later, on page 15, fourth paragraph, the report states, "As previously discussed in the Source Analysis section, the discharge of runoff regulated under the municipal storm water permit is believed to be the primary source of diazinon entering Chollas Creek. Except that it's <u>not</u> previously discussed, at least that I could see. Other permitted sources are indicated as being insignificant, but the municipal source is simply described without noting its importance.

Under the Margin of Safety discussion, I would like to see a brief definition of what an "implicit" margin of safety is. Not everyone is familiar with this expression, and although this term is obliquely defined later ("A margin of safety was built into the water quality criterion…"), it would be nice to have it defined early, perhaps in the context of "compared to what?" (For example, as being different from an "explicit" margin of safety, which is something in addition to the TMDL value.)

On page 17, second paragraph, the report mentions that "creek bed sediments represent a reservoir from which diazinon can enter flowing water in a creek…even when no runoff enters the creek." This is potentially important, and somewone might ask, "How significant is this reservoir? Does this need to be accounted for in the TMDL?" I have no suggestions to offer here about how to deal with these questions, but staff may want to consider them and possibly somehow dismiss them in the report if this reservoir is not a significant source of diazinon..

Also on page 17, very bottom, I found the discussion about "first flush" somewhat confusing. The discussion indicates that there are two types of "first flush" phenomena: one resulting from rainfall following a long, dry period, and the other from the first increment of rain from a particular storm. To me, these two scenarios are not exclusive in defining a "first flush" moment. That is, the "first flush" is the runoff created by the first rain of the wet season, which (by definition) usually follows the dry season.

**Implementation and Monitoring**

The title of the report indicates that it's a "Technical" TMDL. I thought that this meant that an Implementation Plan was not necessary. Does the fact that one is included mean that this TMDL is indeed a future basin plan amendment? If so, that's fine-- I was just curious. I thought the Implementation Plan was well-considered, relying on a emphasis on Integrated Pest Management, Best Management Practices, and public outreach to achieve the desired goals. The recommendations appear both sensible and comprehensive, addressing the need for the Department of Pesticide Regulation to also be involved in solutions. Lastly, on page 21 there's the indication that "municipal storm water permittees would be directed to monitor the creek for diazinon and toxicity…" This clearly appears regulatory in nature, and I suppose these new conditions could simply be written into their existing permits upon renewal. Again however, if this is going to be a basin plan amendment, I suspect that these new conditions will need to appear there too, in which case the necessity for such regulation will need to be clearly explained in order to pass Office of Administrative Law muster.

S:\WQS\Final Documents\All Final TMDLs\Chollas Creek -- Diazinon\Agenda packet\EOSR Supplemental Attachment 9